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ABSTRACT

The first volume of the Research Register contains summaries of published and unpublished educational research completed in Northern Ireland from 1949 to 1970. Its purpose is to provide nonevaluative summaries of relevant studies for use by researchers and teachers. Research topics focus on the history and philosophy of education, sociology and social psychology of education, teaching methodology, handicapped children, individual differences, developmental studies, and cognitive processes. Part one contains a list of 228 titles and authors of research theses completed in education and psychology departments at Queen's University in Belfast and at St. Mary's and St. Joseph's Colleges of Education. Entries are listed in order of completion date. Part two contains abstracts of 25 theses completed during the academic year 1969-70 in the education and psychology departments at Queen's University. Part three offers 57 selected articles and books published in Northern Ireland from 1945 to 1970. Most refer to experimental and historical research topics. Entries are listed in order of year published and include author, title, and journal or publisher. All items are numbered and a subject classification is provided in part four. (ND)

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THE NORTHERN IRELAND COUNCIL

FOR

EDUCATIONAL RESEARCH

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Register of

Research in Education

Northern Ireland

SP 009 607

2

Volume One : 1945–70

PUBLICATIONS OF THE NORTHERN IRELAND COUNCIL FOR EDUCATIONAL RESEARCH

6

Register of Research in Education - Northern Ireland

THE NORTHERN IRELAND COUNCIL
FOR
EDUCATIONAL RESEARCH

Register of Research in Education - Northern Ireland

Volume I

1945 - 1970

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FOR
EDUCATIONAL RESEARCH

FOREWORD

During the last twenty years over two hundred research dissertations and theses relating to educational topics have been completed in Northern Ireland. In only a few instances have the results of the research been subsequently published. In consequence, the results of these investigations remain largely unknown to researchers and teachers alike.

In order to supply an obvious need for the documentation of published and unpublished work, the Northern Ireland Council for Educational Research proposes to publish a Register of Research in Education incorporating non-evaluative summaries of all the relevant studies.

This first issue of the Research Register has attempted to classify research completed since 1949.

Part I contains definitive lists of the titles of research theses completed in the Department of Education, Queen's University. Also included are selected lists of theses completed in the Department of Psychology, Queen's University and at St. Mary's and St. Joseph's Colleges of Education.

Part II contains summaries of theses completed during the academic year 1969-1970.

Part III details published articles and books, for the years 1945-1970, written while the authors were resident in Northern Ireland. The majority of the articles refer to experimental and historical research topics, but a few general articles have also been included.

For easy reference the titles of all research topics and published articles are numbered in order of their presentation within the present text and a subject classification is provided in Part IV.

The second issue of the Register of Research in Education will contain summaries of research topics completed in the academic year, 1970-71, and also a list of the holdings of educational journals in Northern Ireland libraries.

I would like to thank Miss N. Wylie for typing this manuscript and Dr. J. A. Wilson for his help in its completion.

KAREN TREW
N.I.C.E.R. Research Unit,
Queen's University.

CONTENTS

	Page
Foreword	v
PART I: Lists of Theses	1
PART II: Summaries of Research Theses	27
PART III: Lists of published Articles and Books	63
Subject Index	71

PART I

LISTS OF THESES

M.Ed. : Queen's University Belfast (1949-'69)

A Definitive List of Theses accepted in part fulfilment of the requirements for the degree of Master of Education (formerly Bachelor of Education) in the Departments of Education and Psychology, Queen's University (1949-'69).

	Department in which thesis is available
1. Corry, G. N. (1949) A comparison between the achievements of delinquents and non-delinquents in verbal and non-verbal scholastic and intelligence tests.	Psy.
2. Eason, I. (1949) A consideration of verbal and practical ability in three groups of boys from an Industrial School, a Child Guidance Clinic and a Primary School.	Psy.
3. Hambly, G. E. (1949) Comparison of the performance of children from preparatory schools with that of children from primary schools in the Qualifying Examination (Northern Ireland) in 1948.	Ed.
4. McBride, J. F. (1950) The construction of a standardised test of general knowledge for children at the stage of transfer from primary to secondary education.	Ed.
5. Weatherup, M. F. W. (1950) The construction and partial standardisation of a graded word-reading test for use in N. Ireland.	Psy.
6. Yates, A. (1950) An enquiry into the nature and scope of the influence of coaching on performance in group intelligence tests.	Psy.

		Department in which thesis is available
7.	Clarke, L. (1951) The effects of verbalisation on the trace.	Psy.
8.	Foster, P. M. (1951) An examination undertaken with school-children of the hypothesis that anxiety encroaches upon the attention so as to impair performance on arithmetic.	Psy.
9.	Harkness, C. (1951) Teachers' opinions of what constitutes maladjustment in school-children.	Ed.
10.	Kinkaid, M. M. (1951) Hypotheses in the field of haptics.	Psy.
11.	McGilton, J. (1951) The influence of method of item selection on the reliability of an arithmetic test at different levels.	Ed.
12.	Neeson, W. (1951) The after-school life of the adolescent linen worker.	Psy.
13.	Thorley, S. (1951) Obversations on the learning of a manual skill with special reference to the influence of general intelligence and age on performance and transfer.	Psy.
14.	Begley, G. B. (1952) To investigate the relations between mental factors and verbal factors in written English.	Psy.
15.	Hughes, P. M. (1952) An analysis and interpretation of staff predictions of the success or failure of delinquent boys in a Junior Approved School.	Psy.
16.	McComisky, J. G. (1952) Facilitation in rote-learning as a function of the nature of interpolated activity: a comparative study.	Psy.
17.	McNeill, D. F. (1952) An investigation of the differences in the ability of children of different intelligence levels to generalise on the Object Sorting Test.	Psy.

		Department in which thesis is available
18.	Nuttall, J. (1952) Test performance of normal children, speech defective children and aphasics.	Psy.
19.	Toner, P. J. (1952) The effectiveness of verbalisation in the learning of certain kinds of non-verbal material.	Psy.
20.	Carter, F. (1953) Juvenile delinquency areas of Belfast.	Psy.
21.	Mann, L. J. (1953) A developmental study of the use of connectives in the written composition of school children between the ages of 7 and 11 years.	Psy.
22.	Neeson, H. (1953) Reminiscence as a function of the meaningfulness of learning material: a comparative study.	Psy.
23.	Neill, A. P. (1953) A qualitative comparison of the casual explanations obtained from and their development in two socio-economic groups.	Psy.
24.	Rice, G. E. (1953) An investigation into the evolution of children's concepts.	Psy.
25.	Dell, G. (1954) A Theoretical and Experimental Study of Humour.	Psy.
26.	Forbes, T. D. (1954) Reminiscence and intelligence: comparisons of reminiscence in children of different intelligence levels.	Psy.
27.	Dodd, G. (1955) A developmental study of gains in the fluency of urban and non-urban primary school children.	Psy.
28.	McCracken, J. J. (1955) The effects of practising a complex arithmetical skill upon proficiency in its constituent skills.	Psy.

		Department in which thesis is available
29.	Wilson, J. R. (1955) An examination of the effects of frustration in a reasoning activity on immediately subsequent performance in that activity.	Psy.
30.	Fee, F. (1956) Reminiscence and the Clustering Effect.	Psy.
31.	Willis, R. L. (1956) The development of language and its relationship with intelligence.	Psy.
32.	Willis, B. E. (1957) An investigation into the differences in concept formation between bright and dull children of the same mental age.	Psy.
33.	Cashdan, A. (1958) The problem-solving of imbeciles: a comparison between normal and defective children of like mental age.	Psy.
34.	McAfee, S. L. (1958) An investigation into the effects of maternal deprivation.	Psy.
35.	Mitchell, R. (1958) The effect of an intellectually sub-normal family constellation upon the verbal attainment of subnormal children.	Psy.
36.	Moore, G. (1958) A Study of Boys' Comics.	Ed.
37.	Foote, J. A. (1959) Some characteristics of visual and auditory perception in children specifically retarded in reading.	Psy.
38.	Hanna, R. G. A. (1959) An investigation in a group of educationally sub-normal children of patterns of performance on verbal and non-verbal tests of intelligence and tests of reading and arithmetic along with a review of some of the literature of subnormality.	Psy.

		Department in which thesis is available
39.	Lyons, A. J. M. (1959) Reading readiness: A review of the literature of the concept along with an experimental study of the effects of training upon readiness.	Psy.
40.	Owens, J. W. H. (1959) Moral judgment in boys aged 7 and 10.	Psy.
41.	Starr, J. M. W. (1959) The Efficiency of Junior Certificate Experimental Science as a predictor of success in specific science subjects at Senior Certificate.	Ed.
42.	Chamberlain, T. (1960) Comparison of a judgment scale with a standardisation test (response) scale in arithmetic.	Psy.
43.	Jamison, H. E. (1960) The relationship between primary school attendance and educational attainment: a preliminary investigation into critical periods of learning.	Psy.
44.	McKeown, M. J. W. (1960) A survey of cerebral palsy and a comparative study of the performance of cerebral palsied children in an academic situation.	Psy.
45.	Fleck, A. D. (1961) Television and the Second Form.	Ed.
46.	Gilmour, M. D. (1961) The relationship between verbal ability and performance on a test of concept formation.	Psy.
47.	Howlin, E. (1961) A study of deprived children: a comparison of institutional children and normal children using the Wechsler Intelligence Scale for Children.	Psy.
48.	Johnston, J. R. (1961) A Comparison of different methods of teaching Backward Pupils in Algebra and Geometry.	Ed.
49.	O'Connell, J. I. (1961) Approaches to the teaching of history in Secondary Intermediate Schools in N. Ireland.	Ed.

		Department in which thesis is available
50.	Sullivan, J. J. (1961) The perception of faces: An investigation of the 'Engel Effect' with some conclusions.	Psy.
51.	Hughes, J. (1962) A Study of the Attitudes of Student Teachers to their Course in Education.	Ed.
52.	Livingston, R. (1962) Intelligence and attainments in a Special School: a comparison between Special School children and Primary School children on tests of intelligence, reading and arithmetic.	Psy.
53.	Paul, J. A. (1962) The study and teaching of Senior Certificate History in a representative sample of N. Ireland Grammar Schools.	Ed.
54.	Perry, S. (1962) An investigation into the relation between visual disability in spelling and performance on the Wechsler Intelligence Scale for Children (with particular reference to the Block Design sub-test) and the Ellis Visual Designs test among pupils of a boys' secondary intermediate school in Belfast.	Psy.
55.	Shanks, D. E. (1962) The scope and aims of the study of Prose in the First and Second Years of the Grammar School Course in N. Ireland.	Ed.
56.	Hamilton, R. A. (1963) A study of the correlation between attitude and attainment at Secondary School Level with reference to English, Mathematics and Science.	Ed.
57.	McEvoy, F. J. C. (1963) An aspect of language development: a study of some of the quantitative characteristics of the written compositions of a sample of primary schoolchildren aged 8+ and 10+.	Psy.

		Department in which thesis is available
58.	Sharps, J. G. (1963) A study of long-term and short-term reminiscence, with a consideration of sex-differences on a motor task (the ball-and-slot machine).	Psy.
59.	Tracey, J. P. (1963) Some divergent trends in Irish Education since 1922.	Ed.
60.	Stewart, I. F. (1964) Anxiety, ability and achievement in algebra.	Psy.
61.	Wilson, J. A. (1964) The Terman-Merrill Vocabulary test in N. Ireland: a quantative and qualitative investigation.	Psy.
62.	Herriot, P. (1965) Some possible connections between grammatical form and the decoding of messages.	Psy.
63.	Loftus, J. S. (1965) An investigation into the effects of two types of motivation on incidental learning in a simple task situation.	Psy.
64.	McAllister, M. (1965) Verbal learning in the classroom under incidental and intentional conditions.	Psy.
65.	Vaughan, T. D. (1965) Some aspects of the distribution of examination success in Co. Down.	Psy.
66.	Kok, S. L. (1966) A study of the vocabulary of children of ages 8+ and 9+ in relation to their socio-economic backgrounds.	Psy.
67.	Unoh, S. O. (1966) Educational Significance of Dialectical Materialism.	Ed.
68.	Gaskin, B. (1967) A study of differences in level of aspiration behaviour between asthmatic and otherwise comparable non-asthmatic children.	Psy.

		Department in which thesis is available
69.	Mulroy, I. (1967) The relationship between anxiety and scholastic success in junior school children.	Psy.
70.	Salters, M. G. (1967) The present position of religious instruction in grant-aided schools in the United Kingdom, with special reference to the religious education of the adolescent in Northern Ireland.	Ed.
71.	Taylor, A. (1967) Sex education and its Provision in Northern Ireland Secondary and Grammar Schools.	Ed.
72.	Graham, A. (1968) Attitudes toward Science among Fourth-Formers in Belfast Grammar Schools.	Ed.
73.	Thompson, W. W. (1968) A Northern Ireland standardisation of the Vocabulary sub-test of the Wechsler Intelligence Scale for Children.	Psy.
74.	Wilson, R. L. (1968) Chronological age, intellectual ability and sex as factors in the moral judgments of children.	Psy.
75.	Bill, J. M. (1969) The Achievement Motive and Social Class.	Psy.
76.	Sterne, V. (1969) R. H. Tawney: his Ideas about Education.	Ed.
77.	Wells, J. F. (1969) The Understanding of Probability: Some Investigations on Grammar School Children at the Stage of Formal Operations.	Psy.

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Thesis accepted in part fulfilment of the requirements for the degree of Master of Education in the Department of Education in the University of Wales.

78.	McCann, E. (1969) A study of certain factors believed to influence the acquisition of language.	

M.A. : Department of Education

Queen's University (1952-'69)

A definitive list of theses accepted for the degree of Master of Arts in the Department of Education, Queen's University, for the academic years, 1952-'69.

79. Gray, E. W. (1952)
The Educational Work of Phillip Emanuel von Fellenberg (1771-1844).

80. Murray, C. (1954)
English schools in Ireland in the 17th and 18th Centuries.

81. Stevenson, G. (1957)
A critical survey of the development of Secondary Education in Ireland, 1791 - 1880, with special reference to schools in Ulster.

82. Holden, J. C. (1958)
Local geography and local studies in Northern Ireland schools.

83. McDonald, A. (1958)
A study of the influence of physical characteristics and bodily functions upon the physical education of girls and women.

84. Coffey, A. (1959)
The place and teaching of English in Secondary Intermediate Schools in Northern Ireland.

85. Forster, M. D. (1959)
A Study of the Prediction of Academic Success in the Queen's University of Belfast.

86. Kilcullen, J. (1959)
The educational work of John Bosco (1815-'88).

87. O'Leary, P. K. (1959)
The Educational Work and Thought of Antonio Rosmini-Serbati (1797-1855), with special reference to his minor works.

88. Spence, W. R. (1959)
The growth and development of the secondary intermediate school in Northern Ireland since the Education Act of 1947.

89. Cassidy, I. (1961)
An analytical study of english educational writing of the period 1640 - 1660, with particular reference to the influence of J. A. Comenius.

90. Darbyshire, J. O. (1962)
An experimental study in the use of record forms with deaf children in Ireland.

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91. McKeown, M. (1962)
Catholic Reaction to mixed Elementary Education in Ireland between 1831 and 1870.

92. Neeson, H. (1962)
The Educational Work of Sir Bertram Windle, F.R.S. (1858-1929), with particular reference to his contributions to higher education in Ireland.

93. Pearce, M. W. (1962)
The growth and development of English as a school subject since 1850 in Great Britain and Overseas, with particular reference to the work of the British Council.

94. Robinson, J. (1962)
Robert Sullivan, Irish Educationalist and Benefactor: a study of his life and times.

95. Hamilton, W. D. (1963)
The development of education in the County of Londonderry from 1800 - 1922.

96. Cave, E. D. (1964)
A follow-up study of the subsequent careers of two matched groups of candidates, classified as "qualified" and "unqualified", in the 1955 Qualifying Examination for admission in Northern Ireland grammar schools.

97. McClelland, J. G. (1965)
The development of educational facilities for handicapped children in Ireland, with particular reference to the deaf in Ulster.

98. Carville, J. B. (1967)
A study of the less able Secondary Modern School pupil in Belfast and his transition from school to work.

99. Graham, J. M. (1968)
A sample survey of the scholastic success of non-qualified pupils admitted as fee payers to Northern Ireland grammar schools in the years 1959 - 1961.

100. Holmes, E. (1968)
Public Opinion and Educational Reform in the North of Ireland, 1900 - 1954.

101. Moore, G. (1968)
Ends and Means in Modern Education: a study of the educational ideas of Aldous Huxley.

102. Kelly, V. (1969)
The extent and causes of early and premature leaving in six selected Northern Ireland grammar schools, in the period 1955 - 1965.

Ph.D. : Department of Education,
Queen's University (1952-'69)

A definitive list of theses submitted for the degree of Doctor of Philosophy in the Department of Education, Queen's University, for the academic years, 1952-'69).

103. Jacques, W. (1952)
Factors determining development in Primary Education in Ireland, 1831 - 1947.

104. Musson, J. W. (1955)
The Training of Teachers in Ireland from 1811 to the present day.

105. Stephens, R. C. (1955)
The Courtly Tradition in English Education from Sir Thomas Elyot to John Locke.

106. Sutherland, M. B. (1955)
The Development of Imagination as a Function of Education.

107. Harrison, J. G. (1956)
The Relationship of Mathew Arnold as Inspector of Schools (1851-1886) with the Non-conformist Educationalists of the time.

108. Wrigley, J. (1956)
The Factorial Nature of Ability in Elementary Mathematics.

109. Kerr, J. F. (1957)
The Development of the Teaching of Science in Ireland since 1800.

110. Price, A. F. (1957)
Humanities versus Science in Mid-Nineteenth Century Educational Thought in England.

111. Sullivan, J. J. (1959)
The Education of Irish Catholics 1782 - 1831.

112. O'Leary, P. K. (1962)
The development of Post-Primary Education in Eire since 1922, with special reference to vocational Education.

113. Cassidy, I. (1966)
The Calvinist tradition in Education in France, Scotland and New England during the Sixteenth and Seventeenth Centuries.

B.A./B.Sc. Department of Psychology

Queen's University (1957-'69)

A selected list of theses accepted in part fulfilment of the requirements for the degree of B.A. or B.Sc. in the Department of Psychology, Queen's University, for the academic years, 1957-'69.

114. Farr, F. M. (1957)
Intelligence and Parental Occupation in Belfast: an experimental investigation using the Wechsler Intelligence Scale for Children as a Research Instrument.

115. Bateman, D. S. (1959)
A preliminary survey of the incidence of maladjustment in Belfast Primary Schools using the Bristol Social Adjustment Guides.

116. Ferguson, G. H. (1959)
An exploratory study into the use of the Bristol Social Adjustment Guides as a means of assessing the incidence of maladjustment in Belfast Primary Schools.

117. Kellaghan, T. P. (1959)
A study of the verbal ability of bilingual children in Ireland.

118. Walker, G. (1960)
A comparative study of the level of aspiration of delinquent and non-delinquent schoolboys.

119. Olley, M. (1961)
Deprived children: a comparison of deprived and non-deprived children on the Thematic Apperception Test.

120. Cooke, A. W. (1962)
An examination of learning set formation in children, using the oddity problem.

121. Graham, J. E. (1962)
Divergant thinking: an analysis of the relative performance of young men and women.

122. Morrison, J. (1962)
A study of various factors effecting the formation of an oddity learning set in children.

123. Pugh, H. M. (1962)
An investigation into the relationship between speed and difficulty in problem solving.

124. Russell, H. D. (1962)
An investigation into the effect of intelligence on level of aspiration.

125. Bates, W. T. G. (1963)
The isolation effect in intentional and incidental learning.

126. Caldwell, J. C. (1963)
The role of test and manifest anxiety in performance on an arithmetical task, as a function of task difficulty and stressful instructions.

127. Duffin, A. (1963)
Television and the teenager: an investigation of the effect of television and some of the factors influencing viewing among the 14-15 year old age group.

128. Howlin, V. S. (1964)
Rigidity in normal and feeble-minded children of like mental age: an experimental study especially concerned with the effects of type or reward and social class on performance.

129. McCallister, H. (1964)
The comparison of intelligence and attainment test scores: an assessment of the method and of the differential effects of type of school and socio-economic class in Northern Ireland.

130. McClure, F. M. (1964)
The retention of incidentally learned connotative responses.

131. O'Mahony, D. J. (1964)
The susceptibility to social pressure in a group of institutionalised juvenile delinquents.

132. Shaw, S. A. (1964)
A comparative study of learning and recall in normal and retarded children of like mental age.

133. Sheane, D. J. L. (1964)
The application of the Wechsler Intelligence Scale for Children sub-tests (Arithmetic and Vocuabulary) to a representative sample in Northern Ireland.

134. Guy, E. D. W. (1965)
Creativity, Intelligence, High Level reasoning and Academic performance.

135. Ledlie, J. (1965)
Creativity, intelligence and problem solving.

136. Nsereko-Musajjagyagenda, T. (1965)
A discussion of the development of the concept of intelligence together with a study of the performance on certain tests of intelligence of two groups of primary school children differentiated in respect of socio-economic status.

137. Courtney, H. E. (1966)
The development of moral judgment in girls in a Secondary Modern School.

138. Crawford, D. S. (1966)
An investigation to study the abstraction and conceptualization of colour, form and number in children aged between six and ten years.

139. Fox, E. G. (1966)
The development of concepts of indeterminate number.

140. Furse-Roberts, E. (1966)
An investigation of the inter-relationships among tests of creativity and of ability in secondary school children.

141. Lukianowicz, M. S. (1966)
A study of the reasons for referral of urban and rural primary school children to Child Guidance Clinics in Co. Antrim.

142. Moore, F. E. (1966)
The relevance of divergant thinking and neuroticism to achievement.

143. Bell, B. G. (1967)
An attempt to improve student listening and note-taking habits by means of an audio-lingual programme.

144. Burns, F. A. (1967)
Introversion-extraversion and learning.

145. Hanlon, E. (1967)
How the child acquires the concept of ratio through the idea of fullness.

146. Irvine, S. R. (1967)
A study of the problem solving abilities of children of high and low creative potential.

147. McHenry, R. E. (1967)
A study of the relationship between creativity, visual imagination and suggestibility in a group of ten year old children.

148. McKeown, J. M. (1967)
Short term memory and rote learning in the severely subnormal.

149. Orchin, K. C. (1967)
A simultaneous discrimination problem and medium grade subnormals.

150. Pogue, O. F. (1967)
An experimental investigation of the effect of visual information on learning, using closed-circuit television equipment.

151. Atkinson, J. T. O. (1968)
Anxiety and aggression in early adolescent male delinquents.

152. Bishop, J. T. S. (1968)
An investigation of the effects of visual and auditory distraction upon an intellectual task with reference to distraction complexity and extraversion-introversion.

153. Black, D. S. (1968)
Testing for verbal "creativity" in primary school children - the effect of situational variables on test scores.

154. Bryans, W. T. T. (1968)
The effect of frustration on the performance of a verbal task using high and average intelligence children.

155. Byrne, T. (1968)
Social class and modification of syntactic style.

156. Curran, L. P. (1968)
A study of the effects of socio-economic background on attainment in tests of reading comprehension and arithmetic of children aged nine years attending Catholic Voluntary Schools.

157. Gibney, N. S. (1968)
The differential effects of praise and blame on extraverted and introverted school children.

158. Heskin, K. J. (1968)
Some factors influencing performance on a motor task and a verbal task.

159. Hichens, J. H. (1968)
A study to assess the relative contributions of speed and level to power on an intelligence test (Raven's Progressive Matrices).

160. Johnston, A. C. (1968)
To investigate the relationships between a form of personal suggestion, intelligence and clinical group in non brain-injured mentally subnormal children aged 8-16 years.

161. Johnston, P. E. (1968)
The relationship between certain personality variables and performance on a verbal and non-verbal task, as a function of stressful instructions.

162. Morris, M. (1968)
An investigation into personality differences in student groups.

163. McVeigh, M. C. (1968)
Leadership styles and personality characteristics of student leaders.

164. Ogle, J. T. (1968)
A sociometric investigation at the Primary School level to examine the relationships between social status, school performance and intelligence for a less qualified group.

165. Rosier, F. N. (1968)
A study of juvenile delinquents in a remand home.

166. Scott, P. (1968)
The development of the conceptualisation of personality.

167. Shribman, M. (1968)
Predelinquency: an investigation into its relationship to intelligence, extraversion and reading ability.

168. Taylor, H. A. (1968)
Negative transfer in high grade subnormals.

169. Warden, D. A. (1968)
An investigation into the comparative abilities of young deaf and hearing children to perform certain concept attainment and concept transfer tasks.

170. Woods, A. M. (1968)
A study of children's creativity and its recognition by their peers.

171. Carrington, L. R. V. (1969)
The comparative values of positive and negative social reinforcement on educationally subnormal children.

172. Cole, R. A. (1969)
An evaluation of psychological tests of learning and memory: a theoretical and experimental approach.

173. Elliot, M. E. R. (1969)
An investigation of the social competence of normal and subnormal children living under different types of residential care.

174. Elliot, M. A. (1969)
An investigation of indeterminate number concepts in primary school children.

175. Gray, M. D. (1969)
The relationship between social class, social mobility, intelligence and delinquent behaviour.

176. Jeffrey, M. M. (1969)
Aggression and associated personality factors in the young male delinquent.

177. Kennedy, J. A. (1969)
Dimensional shape discrimination in the severely subnormal.

178. Marshall, A. T. (1969)
An investigation into the differential effects of pictorial, written and oral presentation of stimuli on performance in a concept formation task, using subjects aged eight years six months to nine years six months.

179. McAllister, T. A. (1969)
An assessment of the social development of Autistic Children.

180. McCollum, E. F. (1969)
Visual perception in deaf children: incorporating a comparative study of hearing, partially hearing and deaf children.

181. McPhelimy, J. J. (1969)
Manifest anxiety, intelligence and attainment in "Advanced-Levels" of the General Certificate of Education, Northern Ireland.

182. Pinkerton, E. M. (1969)
An experimental investigation of the effects of the distribution of practice and varying numbers of stimulus presentations on incidental learning.

183. Robinson, M. C. (1969)
An experimental study of the effect of instructions on the performance of a concept-shift task in normal and subnormal children.

184. Tate-Manning, S. (1969)
Ability, social class, and type of school attended as related to competitiveness in elementary school children.

185. Whitehouse, P. D. (1969)
Concept Formation: a study of Eliminative and Enumerative thinking.

186. Wilson, D. (1969)
Creativity, Academic Performance and Personality: an experimental study.

187. Young, M. M. (1969)
Children's ability to define words as a function of (a) intelligence and (b) social class.

M.Sc. in Developmental and Educational Psychology

Department of Psychology, Queen's University.

A definitive list of theses submitted in part fulfilment of the requirements for the degree of M.Sc. in Developmental and Educational Psychology, Queen's University for the academic years, 1968-'69.

188. Campbell, K. (1968)
Social class differences and language: a comparative study of written work of two groups in a Belfast primary school.

189. Davison, R. (1968)
Incidental learning and intelligence.

190. Greer, G. B. (1969)
A preliminary investigation of the learning of the mathematical concepts of set union and intersection by Primary School children.

191. McCourt, C. (1969)
An investigation into the level of aspiration behaviour of children in different situations, together with a Review of factors underlying level of Aspiration Statements.

192. Shackleton-Bailey, M. J. (1969)
Creativity: A theoretical study and an experiment.

M.Sc. in Social and Occupational Psychology

Department of Psychology, Queen's University.

A selected list of theses submitted in part fulfilment of the requirements for the degree of M.Sc. in Social and Occupational Psychology, Queen's University, for the academic year 1969.

193. Ogle, J. T. (1969)
Some variables with programmed instruction in apprentice training.

194. Waugh, J. L. (1969)
A survey of attitudes towards youth club membership in Northern Ireland.

M.A./M.Sc. : Department of Psychology

Queen's University (1952-'67)

A selected list of theses accepted for the degree of M.A. or M.Sc. in the Department of Psychology, Queen's University, for the academic years, 1952-'67.

195. Yosufzai, F. (1952)
Some influence affecting Remembering in Children (with a review of the literature).

196. Harkness, C. (1954)
A study in laterality.

197. McGuffin, S. J. (1956)
An investigation into the factors influencing the choice of career by boys in two Belfast grammar schools.

198. McClenahan, M. R. (1957)
The construction and partial validation of a non-verbal intelligence test for children around the age of seven years.

199. Hughes, P. M. (1959)
An analysis and interpretation of staff predictions of the success or failure of delinquent boys in a Junior Approved School.

200. Fulton, J. F. (1964)
Factors influencing the growth and pattern of the Child Guidance Service and School Psychological Services in Britain from 1900 to the present time.

201. Rowlands, D. (1964)
Psychology of Adolescence: a problem in social learning.

202. Mukherjee (Mukhopadhyay), L. (1965)
Psychological aspects of physical handicap in childhood, being a review of research relevant to the deaf and the blind.

203. Nsereko-Musajjagyagenda, T. (1966)
An investigation of some aspects of Piaget's work on the development of children's ideas of number.

204. Fee, F. (1967)
Reasoning abilities and educational performance in Secondary School pupils suffering from slight hearing loss: a factorial study.

Ph.D. : Department of Psychology

Queen's University (1952-'69)

A selected list of theses accepted for the degree of Doctor of Philosophy in the Department of Psychology, Queen's University, for the academic years 1952-'69.

205. McGilton, J. G. (1958)
The Verbal abilities and patterns of Language skills of representative groups of Primary School Children.

206. Burton, L. (1964)
Three studies of deviant child development. An assessment of some possible personality variables in the aetiology of asthma, accident involvement and sexual assault.

207. Wilson, J. A. (1964)
The depletion of national resources of human talent in the United Kingdom. A special aspect of migration to North America, 1952 - 1964.

208. Darbyshire, J. O. (1965)
A consideration of some of the literature on children's reasoning with particular reference to the development of reasoning in the deaf along with an experimental study in the use of adaptations of some of Piaget's tests with groups of deaf and hearing children.

209. Kellaghan, T. P. (1965)
The study of cognition in a non-western culture, with special reference to the Yoruba in South-Western Nigeria.

210. Caldwell, J. C. (1966)
The relationship between the general adjustment of the school child and his relative attainments in language and number.

211. Mackay, D. N. (1966)
Learning in the severely subnormal.

212. Achenbach, P. (1967)
Mental subnormality, 1324 - 1961. A consideration of the development of the concept, with an account of the relevant British legislation and of the psychological aspects of the educational provision for the intellectually subnormal child.

212. Shouksmith, G. (1967)
Thinking, Creativity and Cognitive Style. An Experimental and Theoretical Study.

214. Turner, I. F. (1967)
Probability and the Behaviour of Children in Sequential two-choice situations.

Theses accepted for the degree of Doctor of Philosophy in the Faculty of Economics, Queen's University.

215. Eagleson, D. (1958)
Employment and training of girls leaving Belfast primary, secondary, intermediate and grammar schools in relation to the educational system and the employment services.

St. Joseph's and St. Mary's Colleges of Education

A selected list of topics accepted for diplomas in St. Mary's College of Education and St. Joseph's College of Education for the years 1961-'69.

216. Barrett, B. C.
A survey of the peripatetic remedial teaching service in Northern Ireland.

217. Brennan, J.
A study of programmed learning in the school setting.

218. Cullinane J. B.
Dungannon: a survey of its educational function.

219. Darby, J.
Educational and vocational guidance in catholic grammar schools in Northern Ireland.

220. Hamilton, N.
Headmasters' attitudes to parent-teacher co-operation.

221. Kearney, A.
Language and social class.

222. Kerrigan, T.
Reading readiness.

223. McGartland, P.
The operation of the youth employment service in Northern Ireland with an historical introduction.

224. McGrillan, J.
Maladjustment in children - a general survey.

225. McGurk, J.
The provision of facilities for the education of deaf children in Ulster - past and present.

226. Molloy, M. B.
The Moxon remedial formula: experiment and assessment.

227. Taylor, J. T.
Secondary education in Ireland 1800-1878.

228. Watson, W. S.
Colour blindness: a study of colour vision defects and an investigation into them.

PART II

SUMMARIES OF RESEARCH THESES

COMPLETED IN THE DEPARTMENTS OF EDUCATION
AND PSYCHOLOGY, QUEEN'S UNIVERSITY BELFAST
IN THE ACADEMIC YEAR 1969 - 1970.

Summaries of theses presented in fulfilment of the requirements for the degree of M.A. in the Department of Education, Queen's University, for the academic year 1969 - 1970.

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229. Beattie, D. R. (1970). A study of a guidance scheme in a Belfast Secondary School.

The role of the teacher/counsellor was examined during a two-year period. The subjects were 197 boys and girls aged between twelve and fourteen. During the study, all children were informally interviewed by the counsellor, and those requesting additional interviews for personal problems were seen again.

The problems presented to the counsellor were divided into eight categories; vocational, academic, home, health, dislike of school, behaviour, social relationships and recreational problems. Vocational problems (17.04%) and health problems (13.4%) were found to be the two largest problem areas.

When the inter-relationships among these problem areas were examined statistically, thirteen were found to be statistically significant, e.g. the author reports that girls and boys with health problems tend to have problems with social relationships.

Standardised tests of ability (the Northern Ireland Selection Tests (11+)) and attainment (the National Foundation for Educational Research English Attainment Test Two and the Vernon Graded Arithmetic Mathematics Test), the Bristol Social Adjustment Guide, sociometric tests and an analysis of school records were used to identify six groups of children i.e. "maladjusted" pupils, "under-achievers", "social isolates", poor attenders, children from large families (six or more siblings) and children from "broken homes". Each sub-group was compared with a group of matched controls for use made of the counselling service. In general the "at risk" groups

presented more problems than the matched group of controls.

Relationships among eight "adverse factors" (maladjustment, under-achievement, social isolation, bad attendance, "broken home", large family, Social class five, and the receipt of school meals) were analysed. Twelve statistically significant inter-relationships were obtained and are discussed in detail.

Where Sex comparisons were made of range of problem types, the number of interviews and the incidence of each problem type presented to the counsellor, no clear trends were observed.

An analysis of the children's use of leisure showed that 77% of the boys and girls belonged to youth organisations. 72% of the boys were interested in sporting activities as compared with 25% of the girls.

The author concludes that the guidance scheme enabled a much closer relationship to be established with the pupils and brought into the open many more of the children's problems than would otherwise have been discovered. He considers that effective counselling requires a considerable amount of time and preparation on the part of the counsellor and adequate time must be given for this valuable aspect of a school's work.

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230. Donaghy, T. P. (1970). A study of the Secondary system of Northern Ireland, 1947-69, with particular reference to developments of a quasi-comprehensive nature.

This study fell into two parts. Part 1 dealt with the secondary school system of Northern Ireland between the years 1947 and 1969, and particularly with the ways in which the original tripartite framework (grammar, junior technical and secondary intermediate) had been gradually modified by developments tending in the direction of the emergence of a type of comprehensive education. The legislation which established the system in 1947 was examined and contrasted with the corresponding Westminster legislation, and the conclusion was reached that the 1947 Northern Ireland Act was much more rigidly tripartite in its intent than its cross-channel counterpart. The part played by the voluntary secondary (later grammar) schools in establishing the system of 1947 was examined.

The actual operation of the system in its early years was described and the first efforts to modify it, in Belfast under Dr. Stuart Hawnt, were detailed. The gradual growth of external examinations in certain intermediate schools and the changes such developments produced in the official approach to these schools (culminating in the 1964 White Paper) were studied. Developments were then described from 1964 to the present time, and especially the 1968 Education Amendment Act. Possible lines of future development were then traced, particularly the regional developments proposed by the local education authorities.

Part II of the research was a report of an investigation of 14 secondary schools which have been described by Ministry of Education officials as "comprehensive". Details were given of their evolution to this form. Their present capacity to provide education (both in the more formal 'book-learning' sense, and in the social and personal sense) was examined, along with some other matters relevant to their present state of development.

A postscript contained the observations of the writer on the information which had been detailed. The main burden of these observations was that despite the excellent progress made the quasi-comprehensive schools of Northern Ireland are very much limited in what they can achieve by the fact that they operate in what is basically still a rigidly bipartite system; their pupil population and the structure of the education system prevent them from being truly comprehensive; their present state is thus fairly described by the term 'quasi-comprehensive'. The future interaction of official policy and policies of individuals in schools is awaited with interest.

Summary of thesis presented in fulfilment of the requirements for the degree of Ph.D. in the Department of Education, Queen's University, for the academic year 1969 - 1970.

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231. Hunter, J. (1970). The development of training school provision for delinquent boys in Ulster since 1860.

The author examines the development of reformatory institutions in Northern Ireland in relation to the development of European and English provisions for young offenders.

The influences of reformation and industrial school legislation in Great Britain is discussed in relation to their effects in Ireland.

The history of St. Patrick's industrial school is discussed. The histories of Malone training school and Balmoral industrial school and their subsequent development at Rathgael are also examined.

The development of education in the training schools is discussed in the context of general educational development in Northern Ireland. Finally, the operations of the present schools are examined and compared.

The author considers that his research reveals four salient features in provision for delinquent boys in Ulster during the past hundred years:

1. a persistent emphasis on reformation rather than prevention;
2. the desire to preserve the voluntary and private nature of provision (as opposed to complete government control);
3. the very close following of the English example, usually after a considerable time-lag; and
4. the growth of central government willingness to assume responsibility for very considerable capital outlay in this field.

The author critically discusses the Children and Young Persons Act (Northern Ireland), 1968, in relation to the previous approaches to juvenile delinquency in Northern Ireland.

Summary of thesis presented in partial fulfilment of the requirements for the degree of Master of Education.

231(a). Salters, J. (1970). Attitudes towards society in Protestant and Roman Catholic school children in Belfast.

Three questionnaire scales were devised by the author to test (i) general tolerance (ii) religious tolerance, and (iii) civic responsibility. After a pilot survey, these questionnaires were administered to 939 (465 Protestant and 474 Catholic) fourth form boys and girls in 16 Belfast schools. The sample was taken from both secondary and grammar schools and represented a wide ability range.

It was found that the overall differences on all three scales favoured the Catholic group. Pupils in Catholic grammar and secondary schools obtained higher average scores than pupils in "Protestant" grammar and secondary schools, with the exception that on the civic responsibility scale, the difference favoured the "Protestant" grammar school children. The Catholic manual and non-manual sub-groups had higher mean scores on the tolerance scales than their Protestant counterparts. However, for the civic responsibility scale the Protestant non-manual group was slightly, but not significantly, superior to the Catholic non-manual pupils. Catholic boys and girls taken in separate groups had higher mean scores on all scales than boys and girls in the Protestant sample.

Overall there was greater homogeneity within the Catholic sample than within the Protestant sample.

Summaries of selected theses presented in partial fulfilment of the requirements for the degree of B.A. and B.Sc. in the Department of Psychology, Queen's University, for the academic year 1969 - 1970.

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232. Davey, E. M. (1970). The effects of Social Acceptability on Aspiration Level and Persistence.

In our culture, with its competitive element, a certain amount of importance has been attached to the setting up of goals. The concept of Level of Aspiration was introduced to investigate this behaviour. Subsequently it has received a lot of attention and is now regarded within the context of achievement motivation.

Persistence too has been discovered as an important factor in behavioural studies, and within the motivational context it is closely interwoven with Level of Aspiration.

The aims of this study were to ascertain whether:

1. the aspiration levels of socially unpopular children would be more extreme than of popular children;
2. the popular child would persist as long at a tedious task as the unpopular child;
3. there would be a positive correlation between the number of children in the family and the level of social acceptability;
4. the levels of aspiration and persistence would correlate with various other social and educational factors.

A Social Acceptability Rating Scale, the Otis Intelligence Test Form A, Vernon's Graded Mathematics Test and Schonell's Reading Test were administered to a class of 34 nine-year-old children of both sexes. Other data obtained from the class as a whole included each child's chronological age, ordinal position in the family and number of siblings in the family. The pupils included in the top and bottom third of the Social Acceptability Rating Scale were used for the popular and unpopular categories.

From these, the ten most popular boys and girls and the ten most unpopular boys and girls were tested with a Risk-Taking Task and a Pea-Dropping Task in order to test aspiration and persistence level.

The first three hypotheses were not substantiated. Popular and unpopular pupils did not differ in the Risk-Taking and Persistence Tasks, but the popular pupils had higher Arithmetic, Reading and Intelligence scores than the unpopular pupils.

The author emphasises that the samples were small in this study and the variables are closely inter-related in many ways.

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233. Hamilton, N. (1970). An investigation into training a group of Non-conserving Primary School Children on Tasks of Illusory Distorted Length.

The formation of stable, unchanging ideas about the physical world is an essential feature of the cognitive development of young children. When a child recognises, for example, that length, volume and number size can only change by the visual operations of addition and subtraction, he is regarded as having attained conservation of these concepts.

This study was concerned with the conservation of length in a group of 7 - 8 year-old children, in relation to the developmental theory of Jean Piaget. Recently, a new method of testing has been advocated which uses visual illusions as a means of perceptually distorting length and area, with conservation being re-defined as the capacity to resist visual illusions. This investigation employed such a method in an effort to establish the effects of accelerating conservation by training, an approach which was not explored by Piaget. In addition, the importance of verbal ability and intelligence in relation to conservation were examined.

A group of 40 children aged 7 - 8 years were tested individually, using sticks of unequal length and eight visual illusions. Each subject was asked to judge the apparent lengths

of two equal sticks in an illusion and also their relationship if the sticks were lifted out of the illusion. Responses to two such tests determined the presence or absence of conservation and the two resulting groups - conservers and non-conservers - were randomly divided into training and control groups.

The training group were then allowed to compare the lengths of two equal sticks both in and out of four different illusions, by replacing them in the alternative positions in each illusion. The control groups were asked to build four designs using twelve sticks of equal length. All subjects were then tested on the initial two illusions and three new illusions, with each subject responding to two questions about the appearance and reality of the two sticks being compared. The Peabody Vocabulary Test was administered individually to each subject at the conclusion of his or her testing.

None of the conservers, either training or control, changed categories when re-tested. One non-conserver in the control group was found to conserve on re-testing. It was possible to train seven out of the ten non-conservers to become conservers. No relation was found between the ability to conserve and either the chronological or mental ages of the subjects.

The fact that training was shown to be successful in accelerating conservation supports earlier research findings. Such training was not merely training of a 'learning set' because the ability to generalise to novel tasks was seen in all the successfully trained non-conservers.

The author suggests that Piaget's theory must be expanded to allow for 'learning processes' and practice with the apparatus which is used.

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234. Higginson, J. J. (1970). Socialisation, self-concept, value orientation and awareness of limited opportunity in male adolescent delinquents.

The aims of this study were to see whether delinquents would have lower scores on self-concept (measured on the Lipsitt Adjective

Check List) and socialisation (measured on Gough SO Scale, form C.P.1); and higher scores on value orientation and awareness of limited opportunity (measured on the Landis instruments of the same name), than two groups of non-delinquents.

The measuring instruments were all questionnaire-type tests. 72 subjects, all male and in the age range 12-16 years, were distributed over three groups; a lower-class delinquent group (E) a lower-class non-delinquent group (C_1) and a middle-class non-delinquent group (C_2).

Subjects in each group were given the four scales, at one session, in their respective schools and in group situations. The scores obtained from each test were compared for groups E and C_1 and C_2.

For each of the four concepts measured, the delinquent groups scored lower than the non-delinquent groups, while no significant differences were found between the non-delinquent groups.

The results of this study agree with previous research findings and support the theoretical view that selective resistance to delinquency is attained by the possession of good self-concept (related to favourable socialisation).

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235. Hunter, J. (1970). An investigation into the differential effects of social approval on motor performance in a delinquent and a non-delinquent group. Comparison between the groups is also made in terms of certain personality variables.

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32 male delinquents, aged 13-15, were matched with 32 non-delinquents for sex, age, intelligence and socio-economic status. Each group of subjects was given the Junior Eysenck Personality Inventory (E.P.I) and the Raven's Progressive Matrices Test. Each boy, individually, was given 25 ten-second learning trials on the pursuit rotor (a motor task requiring the subject to keep a stylus in contact with a small target circle at the edge of a rotating disc). After the first twenty trials a two minute rest was had during which the experimenter talked to the subject on

points unconnected with the experiment. Five learning trials were given after this rest period enabling a later assessment of reminiscence to be made. These trials were followed by 15, ten-second trials verbally reinforced using, in random sequence, verbal approval "Good", no comment, and verbal disapproval "Bad".

No differences were found between the delinquent and non-delinquent groups with respect to neuroticism and lie scale scores on the E.P.I. However, there was a slight tendency ($p<0.1$) for delinquents to be less extrovert than non-delinquents.

The delinquents and non-delinquent subjects obtained similar scores for performance and motor ability, as measured on the pursuit rotor and on reminiscence after a rest pause or the same task.

Non-delinquents showed a tendency ($p<0.1$) for "verbal approval" and "verbal disapproval" scores to be higher than "no comment" scores. The scores of the delinquents remained similar whatever the treatment condition. However, delinquents had higher scores for all three treatment conditions than non-delinquents.

The author argues that the observed differences between the groups may have resulted from the institutionalisation of the delinquents and their resultant inability to freely meet new people having the effect of making them more affable with those who come to see them. Therefore, under conditions of verbal reinforcement delinquents were more highly motivated to perform well than the non-delinquents and accordingly their scores rose.

The author concludes that future research must admit to the heterogeneity of delinquents and concentrate on recidivists and offenders who have committed particular types of crime.

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236. Law, A. E. (1970). An investigation of the social schemata of deaf and hearing children.

Previous research has shown that certain model patterns emerged when subjects freely placed various human and non-human figures on a large homogeneous background: human figures were generally grouped without intervening non-humans. It has been suggested that the

grouping of objects, indicating that they belong together, is based on some plan or schema which might be called a social schema, if the objects represent people. For instance, an experiment has been performed using the reconstruction of social object displays from memory. When subjects viewed a set of men and woman figures a certain distance apart, there was a marked tendency for the subjects to replace the figures too close together. Here, the schema that men and women belong together appeared to interfere with the judgement process.

The author thought that deafness with its consequent social isolation would seem likely to have an effect on the development of social schemata.

An experiment was designed to see whether the social schemata of the deaf differed from those of the hearing, whether the social schemata of deaf boys differed from those of deaf girls, and whether the social schemata of 12-year-old deaf children differed from those of a seven-year-old group.

There were 40 deaf subjects, 20 boys and girls aged 7, and 20 boys and girls aged 12, together with 20 hearing children with an average age of 12 years 3 months. Each subject was individually presented with one pair of felt rectangles and five pairs of felt human figures which were placed at a distance of 20 inches apart on the felt board. The figures were removed by the experimenter and the subject was asked to replace the pairs the same distance as they had been before.

All subjects were able to replace the felt rectangles accurately. However, the hearing twelve-year-olds placed the human figure pairs closer together than their original position, while the deaf twelve-year-olds did not display this schema of "people belonging together": they replaced the human figures farther apart than their original position.

There was a significant difference between the male and female deaf twelve-year-olds: the boys placed the human figures farther apart than the girls. The young deaf children, though showing the same deviant schema as the older subjects, did place the figures closer together than older deaf children.

The author concludes that a severe hearing loss, with its accompanying social isolation, appears to have resulted in the development of a social schema which deviates from the schema shown by the hearing group.

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237. Main, A. J. (1970). An investigation of the attitudes of institutionalised retarded, non-institutionalised retarded and normal children towards their families and the children's concepts of reciprocal regard for them.

The Bene-Anthony Family Relations Test has been used in a clinical setting to measure the interaction of behaviour and feeling between a subject and his family. In this study the test was used to compare the family relationships of a group of normal children (N = 16), a group of non-institutionalised retarded children (N = 16) and a group of institutionalised retarded children (N = 15). The three groups were matched in age, sex and social class. In addition, the two retarded groups were matched in intelligence.

It was hypothesised that the institutionalised retarded children would have more negative feelings towards their families and would estimate their families as being more negative towards them than would the non-institutionalised children, and that the latter would feel more negatively towards their families and perceive their families as feeling more negatively towards them than would the normal group. Further hypotheses regarding differences among the three groups on feeling of being over-protected/over-indulged, defence mechanisms employed and the self-concept were tested. Statistical significance of differences between the group was tested by the Mann-Whitney U Test.

It was found that the normal and non-institutionalised did not differ significantly in either their positive or negative feelings towards their families, nor in their perception of their families' positive or negative feelings towards them. No significant difference was found between the non-institutionalised retarded and the institutionalised retarded in either their positive feelings

towards their families or their perception of their families' feelings towards them. However, the non-institutionalised retarded group did have significantly more total negative feelings ($p<.025$), more mild negative feelings ($p<.05$), and more strong negative feelings ($p<.07$), towards their families than did the institutionalised retarded group. The non-institutionalised retarded also perceived their families as being more negative towards them than did the institutionalised group ($p<.10$). No differences in total involvement between themselves and their parents or total nuclear families, nor in estimations by the children of being over-protected/over-indulged, were found between the groups.

The author discusses the lack of significant differences found in the study and examines such reasons as smallness of sample size, complexity of available choices and the unusual method employed by the retarded children in assigning attitudes towards family members. The finding that the non-institutionalised group had significantly more negative feelings towards their families than had the institutionalised group is discussed and a possible explanation in terms of parental/sibling rejection and inconsistent parental handling of the retarded child living at home is suggested, in accordance with the relevant literature. A supplementary finding that, in all three groups, there was a significant ($p<.01$) relationship between the amount of involvement children had with their parents and the amount they thought their parents had with them, suggested to the author, that retarded children may be as capable as normal children of assessing family relationships. It was further suggested by the author that more intensive studies in the area of family relationships of retarded children are required.

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238. McConkey, R. A. (1970). Piaget's concept of egocentrism with normal and retarded children.

One of the recurring concepts in the developmental theory of Jean Piaget is that of egocentrism. Piaget has defined it variously

as a lack of co-ordination, a failure to group relations, and an inability to take another's viewpoint. In this study egocentrism was examined in relation to the child's perception of space, and in particular, in relation to his ability to identify the appearance of a group of objects from a view other than his own. Following Piaget, it was hypothesised that retardates would be significantly poorer on the egocentrism task than a group of normal children. It was also hypothesised that improvement in performance would be observed with 'High Conflict' training.

The subjects were two groups of 32 boys, retarded and normal, each with a chronological age of 8-10 years. The retarded group had mental ages of 4-8 years. This group was further subdivided into four equal groups for training.

The egocentrism test consisted of a cube and an oblong placed in various positions. Subjects had to identify, from drawings, the view a doll would see from a position other than that of the subject. The Retardate group had 36 further training trials under different conditions (High Conflict; Low Conflict; External Reinforcement; Control) and were subsequently given the test again and seven generalisation trials.

The age which children become less egocentric was found to be about ten years. The Retardates were found to be significantly ($p < .01$) more egocentric than the Normals.

All three training groups were significantly better than the no-training control groups. However, no one training method was found to be superior to the others.

The author concludes that the concept of egocentrism is valid, but the question of how a child loses his egocentricity remains unanswered. Piaget has proposed that it is through social contacts, especially with children of his own age, but the author feels that his study adds little to finding out exactly how this process occurs.

239. Millward, K. I. (1970). An analysis of some of the effects of local authority residential care on verbal and practical ability and on personality.

Eight groups of seven children, matched on intelligence (Progressive Matrices) were tested on vocabulary (Stanford-Binet; Terman-Merrill), practical ability (Passalong-Alexander Performance Scale) and personality (Junior Eysenck Personality Inventory). Four of the groups of children lived at home, the other four groups being in residential care. Each of these four groups was divided into two sub-groups of 8-10 year olds and 12-16 year olds, with a further division of the sub-groups for sex.

It was expected that the long-term, 12-16 year old residential group would verbalise poorly compared with those living at home and would do as well as, or better than the other in practical ability. The short-term residential group was expected to show more disturbance after their move into a strange environment away from home, with a consequent decrement in test-performance.

It was found that the older residential girls were the only group to verbalise poorly for their age ($p < 0.05$) and they were significantly better than any of the other older groups on the practical ability test ($p < 0.05$). However, the younger groups all did better on the practical test than the older groups. On the personality measure, the junior residential girls were significantly different from the norm, tending to be unstable and introverted. There was also a tendency for the older non-residential boys to be unstable, but they were not significantly different from the other groups, all of whom were stable and well-balanced.

The finding that the older girls in care did relatively poorly on the verbal measure and relatively well on the practical measure is discussed in the light of previous research showing that residential care depresses verbal ability and that this effect tends to go with improved practical ability. Difficulty in assessing other results are attributed to the low validity, in this study, of both the Passalong Test and the Eysenck Inventory.

240. Waygood, R. G. (1970). Personality and Aspiration Level as Determinants of Occupational Choice.

The aim of this study was to examine the ways in which the factors of 'neurotic trend' and 'levels of occupational aspiration' affect job choice. Previous research had emphasised situational variables such as socio-economic levels and availability of specific employments, although some researchers had investigated such influences on occupational choice as personality maladjustment and achievement drive. A further aim was to suggest an improved measure of aspirational level by means of a new performance test (not yet validated or standardised) in contrast with the more usual questionnaire approach. A relationship was also sought between discrepancy of occupational choice and occupational interest, on the one hand, and neurotic trend and aspiration level on the other.

The sample consisted of 64 fourth-form girls and boys of a Belfast Grammar school. Using the AH4 group test of general intelligence and Scheier and Cattell's Neuroticism Scale Questionnaire, the sample was divided into higher/lower intelligence groups and into high/low neurotic disposition groups. Each subject's major occupational interest field and his level of occupational aspiration were determined from responses to the Lee and Thorpe Occupational Interest Inventory. Expected job choice was obtained from answers to a job questionnaire.

Examination of results (by means of the analysis of variance technique) revealed that the High Neuroticism group had significantly lower level of Interest scores than had the Low Neuroticism group ($p < 0.05$) and that the Higher Intelligence group had significantly higher level of Interest scores than had the Lower Intelligence group ($p < 0.05$). The level of Interest scores of the Lee-Thorpe inventory did not correlate significantly with the performance measure of aspiration. No significant interaction was found between discrepancy scores and neurotic disposition or occupation aspiration level.

Problems of the reliability of the Lee-Thorpe inventory, the influence of the immediate situation on job choice as compared with

basic interests, the smallness of the sample size and differences in the design of the questionnaire and the performance measures of aspiration level are discussed as possible reasons for the lack of significant findings in the study. Further research, it is suggested, is required to investigate whether performance measures can improve upon questionnaire methods in assessing levels of occupational aspirations.

Summaries of theses presented in partial fulfilment of the requirements for the degree of M.Sc. in Developmental and Educational Psychology in the Department of Psychology, Queen's University, for the academic year 1969 - 1970.

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241. Attwood, R. T. (1970). Right-Left Discrimination and Reading Ability.

On previous research evidence it was hypothesised that good readers would excel poor readers in Right-Left (R-L) discriminative ability, but only when the factor of IQ was uncontrolled. A variety of R-L discrimination tests had been used in previous studies. It was hypothesised that relatively lengthy tests would more satisfactorily distinguish between good and poor readers than brief tests. It was also intended to examine the relationship between R-L discriminative ability and reversals in writing.

Three groups of 12 subjects were selected from a sample of 134 eight year old boys on the basis of group tests of IQ and reading ability. Group 1 consisted of good readers and Group 2 or poor readers matched individually with subjects in Group 1 in terms of IQ, chronological age (C.A.) and socio-economic status (S.E.S.). Subjects in Group 3 were matched individually with subjects in Group 2 in terms of S.E.S., C.A. and reading age, but had significantly lower IQ scores.

Subjects were tested on the Neale Analysis of Reading Ability and on a test battery sampling seven aspects of R-L discrimination and incorporating previous tests. Subjects were also given a brief test on their tendency to make written reversal errors.

It was found that good readers did not excel poor readers of matched IQ in R-L discrimination. Support was found for the hypothesis that good readers would excel poor readers of lower IQ. However, the superiority of the good readers was restricted to certain aspects of R-L discrimination.

Where significant differences between groups were found, in regard to R-L discriminative ability, brief tests were as successful as lengthier tests. However, in view of the variability of subjects'

performances across various aspects of R-L discrimination, the author concluded that results from brief tests could be misleading.

Reversal errors were virtually absent among good readers but were common amongst poor readers, irrespective of IQ level. The author concluded that no direct relationship existed between R-L discriminative ability and the tendency to make written reversal errors.

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242. Caldwell, L. (1970). To investigate the difference in language structure and patterns between middle-class and working-class children using two groups of Belfast Primary School children.

Bernstein has suggested that the differing verbal experiences of working-class and middle-class children results in lasting differences in their intellectual development. He argues that the working-class language 'code' is relatively concrete compared with the middle-class language 'code', which is rich in personal qualifications and individual experience.

The Vocabulary, English Usage, and Sentence Structure sections of the Schonell Diagnostic and Attainment Tests were administered to 32 working-class and 32 middle-class, ten-year-old boys and girls, in order to test differences in linguistic ability.

A test of use of conjunction was devised and administered in an attempt to substantiate Bernstein's finding that the working-class language 'code' does not permit the use of conjunctions, which serve as important logical distributors of meaning. Finally, the Verbal and Reasoning sections of the S.R.A. Primary Mental Abilities Test (P.M.A.) were included in the test battery, in order to compare these scores with the verbal ability scores.

In all the tests involving language, the scores of the middle-class children were much higher than the scores of the working-class children. The P.M.A. Test Scores on the Verbal and Reasoning Tests correlated highly with the language scores of the children. These results help support Bernstein's theory: the working-class children were retarded in language development when compared with middle-class children.

The author concludes that the paucity of interests because of social and environmental conditions, and the weakness in linguistic ability severely limits the intellectual development of many working-class children. The author suggests that more research is necessary on the practical question of what can be done to bridge the gap between the linguistic skills of middle- and working-class children, and to facilitate communication between the teacher and the working-class child.

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243. Gardner, P. (1970). An investigation into the effects of stimulus complexity in a concept identification task on children at two levels of intelligence.

The aim of this study was to empirically examine the theoretical viewpoint that children of higher measured intelligence (HIQ) solve concept problems by hypothesis testing (i.e. deductively), while children of average measured intelligence (AIQ) solve the problems by the gradual build-up of stimulus response associations (i.e. inductively). The study attempted to investigate the generality of previous research findings that HIQ subjects were slowed down on a task involving a large number of potential hypothesis from the stimuli, whereas the performance of AIQ subjects remained unaffected.

The stimuli used in this study has dimensions chosen from number, size, shape and colour. The stimuli for the simple task had two dimensions, one relevant and one irrelevant. The stimuli for the complex task had four dimensions, one relevant and three irrelevant. The relevant dimension in both tasks was number or size.

181 9-year-old children were tested on the OTIS Group Intelligence Test (Form A). From these a group of 20 HIQ and a group of 20 AIQ children were selected.

The subjects from both IQ groups were randomly assigned to the complex and simple tasks. They were tested individually. A series of 16 rectangular cards were presented to each subject. He was told that there were many different types of card but the experimenter had grouped the cards into only two main types. He was asked to try and

work out which cards belonged to each type. He was told if he was right or wrong on each trial.

The complex task proved to be more difficult than the simple task for all subjects regardless of intelligence level and relevant dimension used. The results of this investigation did not support the hypothesis that HIQ subjects approach a concept task by a different method than do AIQ subjects.

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244. Holland, I. A. (1970). The relationship of age, sex and social class to implicit verbal reinforcement for primary school children.

Three types of situation in which control is effected by adult approval or disapproval have been designated in previous research:

1. The direct explicit reinforcement of the child's own emitted response;
2. The indirect vicarious reinforcement of the child's future reponses as a result of the child observing the emitted and reinforced responses of a model (e.g. brother, sister, schoolfriend etc.);
3. The indirect implicit reinforcement of the child's responses as a result of the child's evaluation of his own emitted responses in relation to the reinforcement of a model's responses on a similar task, e.g. when two children are engaged on similar tasks and only one is approved of, the implication is that the other is disapproved of. In this case implicit reinforcement operates in the opposite direction to the explicit reinforcement.

This study attempts to demonstrate the operation of implicit and explicit verbal reinforcement for primary-school children, and to evaluate the influence of the variables of age, sex and social-class. A measure of control was exercised over the factor of intelligence. No direction was hypothesised for the expected differences.

10 boys and 10 girls were selected so that the groups were matched on age and IQ, from each of two classes (seven-year-olds and

ten-year-olds) in each of two schools designated "higher" and "lower" social class. The subjects were randomly allocated to same-sex pairs so as to form four experimental groups (explicit-positive, implicit-negative, explicit-negative, implicit-positive) and one control group at each age-level and in each social class.

The experimental tasks were subtests 4 and 5 of the Alexander Passalong Test, with subtests 1 and 2 for practice. Testing was carried out in pairs. Each child completed subtests 1, 2 and 4, after which one member of each pair was either positively or negatively reinforced verbally, or not reinforced; then each child completed subtest 5. Neither instructions nor reinforcement referred to speed, as time-scores were the measure of performance on subtests 4 and 5. Results were analysed by a five-factor analysis of variance with repeats on one factor. There were no consistent effects in either age-group or in either school due to type of reinforcement applied.

The author discussed several possible reasons for the lack of effect of the reinforcement. She suggests that it may have been due to features in the design of the experiment, in the choice of the experimental task, in the particular subjects used, or in the particular experimenter.

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245. Magee, F. (1970). A study of Urban-Rural Differences within a Secondary School.

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54 first-year and 54 third-year pupils in one secondary school were classified according to whether they lived in the town (the Town group), in rural villages within ten miles of the town (the Rural group), or in remote areas beyond the villages (the Remote Rural group).

An intelligence test (S.R.A. Primary Mental Abilities) was administered, and attainment tests of reading (Daniels and Diack's Graded Test of Reading Experience), and arithmetic (Schonell's Essential Mechanical Arithmetic, Form A) were also administered. Attitudes and sociological information were obtained by means of a questionnaire. The results of the tests were analyses to see if they showed differences between the Urban and Rural groups.

A significant difference in the intelligence scores was found to exist between the Town and Rural groups. Differences were also found in attainment. The first year Town and Remote Rural groups scored significantly higher in Reading Attainment than the Rural group. In the third year groups, the Town Group were significantly superior to the Rural or Remote Rural groups in Reading Attainment.

There were no significant differences among the first year groups in Arithmetic Attainment, but differences between third year groups were significant.

The Remote Rural children had the least number of companions outside their own immediate family circle and they had the smallest library membership of any of the groups. In addition, Remote Rural Children displayed more negative attitudes towards school, classroom and study than the other groups.

In general the results of this study confirmed the findings of other research. Some studies indicate a decline in measured IQ score with age in remote areas. Such a decline was discovered in this study in both town and remote rural areas.

Previous research has indicated that among the factors involved in the differences in intelligence and attainment of town and urban pupils are lack of environmental stimulation, geographical isolation, poor educational standards in rural schools, and traditional attitudes that do little to encourage educational progress

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246. Turner, E. A. (1970). The social adjustment, attitudes towards discipline and school preference of boys and girls from co-education and single-sex Secondary Modern Schools.

The social adjustment, perception of discipline and school preference of fourteen-year-old working class pupils in single-sex and co-educational Secondary Modern Schools were examined. Boys attending a single-sex school were compared with boys in a co-educational school, and girls in a single-sex school were compared with girls attending a co-educational. Information on three areas of behaviour were collected using questionnaires designed by the author.

It was predicted that the co-educational pupils would perceive their disciplinary system to be more acceptable than segregated pupils. This was partially confirmed. It was predicted that co-educated pupils would be more satisfied with their present social activity and less inclined to desire change than the segregated pupils. This was confirmed. Finally, it was predicted that all pupils would prefer to be co-educated. This was also confirmed.

The author suggested that the implications for education practice resulting from this study included the provision of opportunities to satisfy needs regarding contact with the opposite sex together with more care on the part of co-educational schools to attain the standards of segregated schools in sport, examination and behaviour in the sense of proper conduct in the eyes of their pupils. The author also suggested that implications for future educational and for psychological research included a need for further studies to identify more precisely non-cognitive factors which may require inclusion in the work of the schools in order to ensure healthy relations between staff and pupils, and education of pupils in the fullest sense of the word.

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247. Williams, R. T. (1970). The Relative Potency of Colour and Form Perception in Young Children.

Previous research has shown that young children from the age of three to seven years undergo a shift in preference from colour to form when they are required to match stimuli on the basis of either dimension. In this study the potency of colour and form stimuli for children aged between three years ten months and six years five months was investigated. In addition, the relationship between the dominant stimulus dimension and the chronological and mental age (measured on the Wechsler Pre-School and Primary Scale of Intelligence 'W.P.P.S.I.') of the child was examined.

30 children were involved in the study. Each child was given four subtests of the W.P.P.S.I., a Colour Blindness Test, a Colour Preference Test and a Shape Preference Test. A week later each child was given the Colour-Form test. This consisted of a standard figure

(e.g. a blue triangle) above which were two comparison figures, one similar in form (e.g. a red triangle) and one similar in colour (e.g. a blue square) to the standard. The subject was required to choose the comparison figure which he thought matched the standard. A preferred colour of form stimulus was eliminated from the range of stimuli. Each child had ten trials with differing stimuli.

No significant sex or chronological age differences were found in responses. However, colour-form stimulus potency was significantly related to mental age in such a way that children of higher mental age tended to match on the basis of form rather than colour; while children of lower mental age matched on colour rather than form. Further, performance mental age was more significantly related to matching behaviour than was vocabulary mental age.

These results support the theorists who had speculated or inferred that intelligence was an important factor in the critical shift between colour-form but had not carried out objective measures to confirm their suspicions.

The author discussed several theoretical explanations for the observed results. He concluded that future research should concentrate on investigating specific environmental factors which may be responsible for the shift from colour to form perceptual dominance in young children.

Summary of thesis presented in part fulfilment of the requirements for the degree of M.Sc. in social and occupational psychology, in the Department of Psychology, Queen's University, for the academic year 1969 - 1970.

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248. Moran, M. E. (1970). Factors operative in the occupational choice of high ability boys in schools differing in curriculum.

The aim of this study was to examine the influence of home, school and temperament on occupational choice. Social class and occupational information possessed by the boys were also considered. Two groups of 15-year-old boys, all of above average, but unequal intelligence, one from a grammar school and the other from a technical college, were given a questionnaire on job choice, reasons for choice and extent of occupation information, followed by the Rothwell-Miller Interest Blank (1968), the Dawson Mental Test (A), and the Guilford-Zimmerman Temperament Survey. Parents filled in a adapted version of the Rothwell-Miller.

Responses to the questionnaire indicated that the boys saw their parents as an important influence on job choice. However, there was no agreement between boys' and parents' choices on the Rothwell-Miller. School influence could also be inferred from the findings, but it may have been that for some of the boys whose parents had elected to send them to a type of school at variance with their 11+ results, prior 'climates of opinion' were at work. The Grammar School boys chose mainly professional occupations and the Technical School boys mainly technical occupations. The only significant difference between the groups on the Temperament Survey was that of Emotional Stability, with the Technical pupils scoring lower than the Grammar. The author points out that this difference cannot account for the differences in occupational choice between the groups.

Summaries of selected theses presented in fulfilment of the requirements for the degree of M.Sc. in the Department of Psychology, Queen's University, for the academic year 1969 - 1970.

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249. Chasty, H. T. (1969). A study of the group social structure of a school and the psychological implications of individual acceptance and rejection within the group.

The group structure of each class within the junior department (P3 - P7) of a co-educational preparatory school was examined using two sociometric tests. The initial test required each pupil to record his reaction to every other child in the class, with respect to the criterion of working together in a small group. The children completed the first sociometric test by drawing a circle round their own name upon the alphabetical list and then by placing an X in the "yes", "no", or "indifferent" column opposite the name of every other child in the class. The algebraic sum of each child's acceptances and rejections gave his or her sociometric status index.

In the second test each child was asked to write down, in order, the three members of the class that he most wanted to work with, when the class was divided up into work groups of four. The results of this test were used to construct sociograms, to illustrate the social structure of each class. The same sociometric tests were repeated with Forms P3 to P7 in the following academic year.

Comparison of the class sociograms revealed that complexity of group structure was not a sequential progression with increased maturity. The group development was found to be from individual (no reciprocated patterns) to pairs (mutual choice of two individuals) and then to chains (A chooses B who chooses C who chooses A) to small group. The group structure did not continue to move to complex structures as the children became more mature. On the contrary, group structure tended to disintegrate, usually under functional motivation,

to a more loosely structured and less complex form of organisation.

Longitudinally, no other clear uniform trend in the progression of group structure emerged. Changes within a class appeared to be determined by the previous structure and the needs and wishes of the individuals involved in the group.

The relationships between boys and girls were found to decrease significantly with increasing maturity.

There were low positive correlations between ability (measured on the Schonell Intelligence Test Form B and the Raven Matrices, for the younger children), and academic achievement (obtained from the school records of performance in past examinations) on the one hand and sociometric status on the other. The author concluded that within this fairly homogeneous school population ability and academic played little part in determining sociometric status in the classroom.

High sociometric status was closely related to good social adjustment as specified by a low score on the Bristol Social Adjustment Scale (completed by the form teacher). It was, however found that some of the children who had low sociometric status had relatively good social adjustment and some had poor social adjustment.

Each child was tested with the IPAT Children's Personality Questionnaire. This test produces a personality profile for each subject. No common profile was evident among children with the highest sociometric status (the star category). However, there was a common personality pattern among children with the lowest sociometric status (termed the rejected category). The mean profile for these children was closely related to the typical "unstable" profile.

The author concludes that the sociometric technique has much to offer, especially in relation to planning remedial measures to be taken with unsettled children and in the advanced planning of efficient groups.

250. Maclock, M. C. (196). Attitudes of Secondary School Pupils towards participation in physical activity.

The attitudes of 180 fourteen-year-old pupils towards physical activity were measured with Osgood's Semantic Differential Scales. The pupils were from both secondary intermediate and grammar schools and from both co-educational and single sex schools. The type and degree of participation by these pupils in physical activity was determined from replies to a questionnaire which was developed by the experimenter.

It was found that secondary school pupils had a favourable attitude towards physical activity. The most positive attitudes were expressed towards physical activity for health and fitness, as a social experience, as an aesthetic experience and as a catharsis (for the release of tension). The attitudes expressed towards physical activity in the pursuit of vertigo or as an ascetic experience were less favourable.

Females had a more favourable attitude than males toward physical activity as a social experience, as an aesthetic experience and as cartharsis. There were no significant differences in attitude toward physical activity between co-educational school pupils and single sex school pupils.

Factor analysis of the information on participation in physical activity provided, in addition to traditional concepts, some new concepts to be considered in classifying physical activities. These concepts included: the masculine/feminine nature of the activity; the availability of the activity, and, among females, the amount of energy expended on the activity.

Males were involved more frequently than females in both primary and secondary participation in physical activity. The level of participation was not affected by the type of school attended by the pupil. A direct relationship was found between the level of primary (active) participation in physical activity and level of secondary (passive) participation in physical activity.

The results of the relationship between attitude towards, and participation in, physical activity showed that some attitude dimensions were related to overall participation, while other attitude dimensions

were specific to the type of participation or to only one sex. For example, attitude toward physical activity as a social experience was related to nearly all factors of male and female primary and secondary participation. Conversely, attitudes toward physical activity as an aesthetic experience was only related to females' primary participation. The results also emphasised that both attitude toward physical activity and participation in physical activity must be viewed in a multi-dimensional manner.

The author makes recommendations for both further studies and future physical activity programmes. She emphasises that local education authorities and other institutions providing physical activity must recognise the multi-dimensional aspect of these activities and provide a wide range of pursuits, of an individual nature which are suited to both sexes.

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251. Kok, S. L. (1970). A Development Study of Concept Formation and Cognitive Equivalence.

The literature on concept formation was reviewed and discussed. In the light of previous research, two investigations were conducted to examine the levels of abstraction reached by children as revealed in concept formation tasks and to test how children discriminate different things and treat them as "the same" or "alike". Six groups of ten boys and ten girls aged seven, nine and eleven were chosen randomly from a large primary school. Each of the sixty subjects was tested individually on two tests using verbal material and three tests using pictorial material (e.g. separate pictures of a dress, gloves, a necklace, shoes, a watch, with a picture of an orange as a contrast to them).

The subject was presented with the first two items in each list and asked how these were alike. This procedure was continued until the last item. The subject was then asked how this item differed from the other items.

Each subject also completed an object-sorting test in which he or she was required to organise twenty familiar objects into groups and to explain how the objects in each group were alike. This operation was repeated four times, using the same items.

Qualitatively, the results were analysed by noting the grouping strategies: i.e. whether they were superordinate (items grouped on the basis of one or more attributes common to them all), or complexive (in which subjects used selected attributes of the array without subordinating the entire array to any one attribute or to any set of attributes), or thematic (items grouped according to a story created by the child). The responses were also analysed according to the level of abstraction, i.e. nominal (e.g they are all metal), functional (e.g you can wear them), or perceptible (e.g they have all got handles).

Analysis of variance indicated no sex differences in groupings. However, there was a significant increase in the use of superordinate groupings with increased age. The number of complexive and thematic groupings were found to decrease with age. There were also significant differences between the age groups in their levels of abstraction to those produced by nouns.

Experiment II investigated whether adjectives and verbs (more abstract test material) could be used as stimuli in the concept formation tests and produce similar patterns of grouping strategies and levels of abstraction.

The same experimental design was used with different subjects. Similar results to experiment I were obtained, but certain differences were noted. In particular, there was a decrease in the use of functional responses for all age groups with no functional responses given by eleven-year-old subjects when the test material consisted of adjectives.

The author considers that the lists of verbs and adjectives, as compared to the list of nouns, encourage a more reflective as opposed to impulsive attitude on the part of the subject. It seems that the more abstract test material forces the subject to think more deeply and so attain a higher level of abstraction.

Summaries of selected theses presented in fulfilment of the requirements for the degree of Ph.d. in the Department of Psychology, Queen's University, for the academic year 1969 - 1970.

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252. McBurney, A. (1969). Sociometric and sex status as factors in the development of children's moral concepts.

The development of moral concepts was discussed in this study in relation to problems of definition and methodolgy.

An objective group testing instrument was constructed suitable for children as young as seven years of age. The test consisted of nineteen forced-choice story questions relating to concepts of culpability and justice. It was designed so that the responses would fall into one of two categories: moral realism (an immature response) or moral autonomy (a mature response). A preliminary version of the test was administered to 96 boys and girls aged 7, 10 and 12 years old. It was found that there was a continuum between five situational dimensions of the concept of culpability and six situational dimensions of the concept of justice: Piaget's hypothesised sequential trend in the moral development of children was supported.

In the main experiment children, including all the final year and third year pupils in a large primary school, were given the objective test and an interview.

Positive correlations ($p < .001$) between moral judgement scores and chronological age supported the previous European research findings, while conflicting with evidence reported by some North American investigators.

Objective group test scores correlated with responses given in the equivalent interview situation, which suggested to the author the possibility of using standardised techniques more frequently in studies of inter and intra-group differences in moral development.

Non-significant sex differences were found for the group-test and interview score totals. Eighteen of the nineteen item scores were also found to have non-significant sex differences, clearly indicating that boys and girls tended to give similar answers in these tests of cognitive moral judgement. The association found between scores obtained on a paired comparisons sociometric test and scores obtained on the moral judgement tests provided some support for the theoretical assumption of a positive relationship between a child's moral development and the social interaction which he may encounter in the 'peer' group.

The author noted that the review of theoretical positions and experimental findings, together with observations based on her study, revealed a number of problems in connection with the development of moral concepts, which remain in need of clarification.

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253. Wilson, J. A. (1969). Adjustment in the Classroom.

Patterns of adjustment-maladjustment were investigated among a sample of 300 pupils, drawn from a population of 10-year-old pupils in Antrim 'county' schools. The sample was distributed among 83 classes in 31 schools.

In the classroom the pupil was considered in each of four complementary adaptive situations: in relation to his teacher; in a learning situation; in relation to his fellow-pupils; in relation to himself. The fifty variables employed in the investigation included teacher ratings, sociometric ratings by fellow-pupils, personality self-ratings, tested ability and attainment, and home and school variables which included measures of social class, family size, ordinal position of pupil among siblings, class size and pupil attendance. Additional 'marker' variables included the teacher's rating of educational failure and the teacher's prediction of pupil sociometric status.

For boys, teachers' ratings distinguished 'withdrawn', 'aggressive' and 'habit' behaviour. For girls, three teacher rating patterns were distinguished, but the major pattern, 'hostile-withdrawal' en-

compassed, as the label implies, a more generalised evaluation of maladaptive behaviour for girls than for boys. Among the self-rating personality tests three factors for boys, Extraverted Stability, Dominance and Extraversion, and four for girls, Extraverted Stability, Dominance, Stable Extraversion and Social Extraversion, were identified. No evidence was found of a non-linear relationship between personality and attainment. On the other hand, Extraversion for boys and Stable Extraversion for girls showed highly significant linear associations with ability and attainment: high-achieving 10-year-olds being extraverted; low-achieving 10-year-olds being introverted.

The final analysis, in revealing some of the demands made on the individual pupil, left no doubt that the classroom favours the educationally successful. The analysis also showed clearly that teacher and pupil ratings discriminate differently for boys and girls. If the pupil is a boy, his fellow pupils set less store by his success than does his teacher. If the pupil is a girl, an outward-going and agreeable disposition, nurtured by favourable home circumstances, including smaller families, is distinctly advantageous. Thus it would appear that the classroom is reflecting differential attitudes and expectations towards the educational and social needs of boys and girls. The author concludes that in this the classroom is not immune from the prevalent attitudes and expectations of society at large.

PART III

SELECTED LIST OF PUBLISHED ARTICLES AND BOOKS
COMPLETED BETWEEN THE YEARS 1945 AND 1970.

A selected list of published articles and books completed between the years 1945 and 1970.

1945

254. Forbes, J.K.
The distribution of intelligence among elementary school children in Northern Ireland.
British Journal of Educational Psychology, Vol. 15, pp 139-145.

1955

255. Wrigley, J.
The relative efficiency of intelligence and attainment tests as predictors of success in grammar schools.
British Journal of Educational Psychology, Vol. 25, pp 107-116.

1956

256. Harrison, J.
Mathew Arnold and the training of teachers.
Educational Review, Vol. 9 No. 1, pp 19-27.

257. McDonald, A.
Individual body conditioning using the circuit method.
Physical Education, Vol. 48, pp 69-74.

1957

258. Stephens, R.C.
The education of a ruling class in renaissance England.
Educational Review, Vol. 9 No. 2, pp 78-95.

1958

259. Wrigley, J.
The factorial nature of ability in elementary mathematics.
British Journal of Psychology, Vol. 28, pp 61-77.

260. Wrigley, J. and Kerr, J. F.
Attitudes and aims in science teaching.
Educational Review, Vol. 11, pp 57-67.

1959

261. Bleakley, D. W.
Teaching unemployed boys in Belfast.
Education, Vol. 113, pp 537-538.

262. Lewis, D. G.
Bilingualism and non-verbal intelligence: a further study of test results.
British Journal of Educational Psychology, Vol. 29, pp 17-22.

1960

263. Lewis, D. G.
Attainment differences in Primary Schools in Mixed Language Areas: their dependence on intelligence and linguistic background.
British Journal of Educational Psychology, Vol. 30, p 62.

264. Price, A.
A pioneer of scientific education, George Combe (1788-1858).
Educational Review, Vol. 12 No. 3, pp 219-229.

1961

265. Lewis, D. G.
Group factors of attainment in grammar school subjects.
British Journal of Educational Psychology, Vol. 31, pp 241-248.

266. Sutherland, M. B.
Bi-focals in education.
Researches and Studies, Vol. 21, pp 49-53.

1962

267. Lewis, D. G.
The relations between grammar school subjects (1).
Educational Review, Vol. 14, pp 134-141.

268. Price, A.
John Stuart Mill and the combination of logic and poetry in education.
Researches and Studies, Vol. 24, pp 86-103.

269. Price, A.
Herbert Spencer and the apotheosis of science (1).
Educational Review, Vol. 14, No. 2 pp 87-97.

270. Price A.
Herbert Spencer and the apotheosis of science (2).
Educational Review, Vol. 14, No.3 pp 233-241.

271. Sutherland, M. B.
A note on pre-sleep imagining in ten-year-old children.
Journal of Child Psychology and Psychiatry, Vol. 3, pp 111-114.

1963

272. Darbyshire, J. O.
Cumulative records in schools for children with impaired hearing.
Educational Research, Vol. 5, pp 141-145.

273. Darbyshire, J. O. and Fee, F.
The ability of deaf children to perceive speech sound through the OL 56 hearing aid supplied under the National Health Service.
Educational Research, Vol. 5, pp 236-239.

274. Lewis, D. G.
An investigation of the subject preferences of grammar school pupils.
Durham Research Review, Vol. 14, pp 95-105.

275. Price, A.
Everything out of nothing. (Northern Ireland Secondary Intermediate Schools).
Education, Vol. 121 No. 28, pp 1269-1270.

276. Wrigley, J.
The psychology of mathematical ability.
Mathematics Teaching, Vol. 22, pp 45-48.

1964

277. Shouksmith, G. and Taylor, J. W.
The effect of counselling on the achievement of high-ability pupils.
British Journal of Educational Psychology, Vol. 34, pp 51-57.

278. McKay, J. R. and Keith, A.
Higher Education in Scotland and Northern Ireland.
Where? 15, pp 22-23.

1967

279. Darbyshire J. O. and Reeves, V. R.
The provision of ascertainment and educational facilities for hearing impaired children.
Educational Research, Vol. 19, pp 203-213.

280. Starr, J. W.
The attitudes of a group of student teachers to the use of corporal punishment in schools.
Educational Review, Vol. 19 No. 3, pp 214-224.

1968

281. Bridges, F. F.
Graduates in primary education.
Education for teaching No. 77, pp 33-39.

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SUBJECT INDEX

I HISTORY AND PHILOSOPHY OF EDUCATION

i. Irish Education: 59, 80, 81, 88, 91, 92, 94, 95, 97, 100, 103, 104, 109, 111, 112, 227, 230, 231.

ii. British Education: 79, 86, 87, 89, 93, 105, 107, 110, 113, 200, 212, 256, 258, 264, 268, 269, 270, 309.

iii. Philosophy of Education: 67, 76, 101.

II SOCIOLOGY AND SOCIAL PSYCHOLOGY OF EDUCATION

i. Teacher motivation, personality and attitudes: 9, 15, 51, 199, 220, 280, 291, 292.

ii. Pupil attitudes: 43, 56, 72, 102, 194, 197, 232, 240, 246, 248, 250, 266, 300, 304, 307, 308.

iii. Pupil personality and motivation: 8, 60, 68, 69, 75, 83, 118, 124, 126, 142, 144, 152, 157, 162, 163, 164, 191, 201, 210, 249, 253.

iv. Sociological and demographic studies: 12, 20, 27, 43, 98, 102, 114, 129, 164, 184, 207, 215, 218, 245.

v. Communication media: 36, 45, 127, 217.

III TEACHING METHODOLOGY

i. Secondary school subjects: 48, 49, 53, 55, 70, 71, 82, 83, 84, 106, 257, 260, 261, 265, 267, 274, 275, 301.

ii. Primary education: 281, 290.

iii. Higher education: 85, 143, 193, 215, 278, 284, 285, 286, 293, 294, 305.

iv. Educational and vocational guidance: 219, 223, 229, 277.

v. Educational technology: 287, 288, 289, 295, 296, 297, 298, 299.

IV STUDIES RELATING TO HANDICAPPED CHILDREN

i. Physical handicap: 18, 44, 54, 68, 90, 97, 169, 180, 202, 204, 208, 225, 236, 272, 273, 279, 302.

ii. Maladjustment: 2, 9, 115, 116, 141, 179, 200, 206, 224, 239, 253, 282.

iii. The severely subnormal: 33, 35, 38, 52, 128, 132, 148, 149, 160, 168, 171, 173, 177, 183, 211, 212, 237, 238.

iv. Slow-learners: 32, 37, 48, 98, 226.

v. Delinquency: 1, 15, 20, 118, 131, 151, 165, 167, 175, 176, 199, 234, 235.

vi. Deprivation: 34, 47, 119, 173.

V INDIVIDUAL DIFFERENCES: STUDIES IN ATTAINMENT, ABILITY AND PERSONALITY

i. Test construction: 4, 5, 11, 42, 61, 73, 172, 198.

ii. Mathematical attainment: 8, 11, 28, 38, 42, 52, 56, 60, 108, 126, 156, 210, 214, 259, 276, 303, 307.

iii. Reading attainment: 38, 39, 52, 156, 196, 222, 241, 310.

iv. English attainment: 14, 56, 210.

v. Public examinations: 3, 41, 96, 99, 181.

vi. Abilities: 1, 2, 6, 54, 61, 73, 114, 133, 136, 140, 154, 159, 205, 254, 255, 262, 263.

vii. Creativity: 106, 134, 135, 140, 147, 153, 170, 186, 192, 213, 271, 233, 306.

VI DEVELOPMENTAL STUDIES

i. Concept development: 24, 77, 136, 138, 139, 145, 166, 174, 202, 238, 251.

ii. Moral development: 40, 74, 137, 252.

iii. Language: 21, 23, 25, 27, 31, 57, 62, 66, 78, 117, 155, 187, 188, 205, 221, 239, 242.

iv. Perception: 10, 37, 50, 228, 247.

VII COGNITIVE PROCESSES

i. Problem solving: 33, 123, 135, 146.

ii. Reasoning: 29, 120, 122, 134, 142, 204, 208, 209.

iii. Reminiscence and memory: 7, 22, 26, 30, 58, 130, 195.

iv. Verbal learning: 16, 63, 64, 125, 132, 148, 150, 158, 161, 182, 189.

v. Concept attainment: 17, 32, 46, 121, 169, 178, 183, 185, 190, 233, 243.

vi. Learning of motor tasks: 13, 19, 158, 161, 244.

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